

Site Specific Rapidly Deployable Camouflage (SSRDC)

Overview:

Site Specific Rapidly Deployable Camouflage (SSRDC) is a system that will quickly reproduce camouflage uniforms geared to the "hot spots" of the world. The camouflage development system will be based on pre-stored spectrophotometric terrain data to provide site specific pattern shapes and colors and will be integrated with computerized inkjet fabric printing, "Just in Time" fabrication and rapid deployment system.

A goal of 2-3 weeks from start to deployment is expected. SSRDC will provide the warfighter with a "real time", increased level of camouflage protection against detection both visually and when viewed through passive night vision devices, such as image intensifiers and starlight scopes.

Status:

Phase I, proof of principle, has been completed. During this phase spectral terrain data was collected from an urban location at the Military Operations in Urban Terrain (MOUT) site in Camp Pendleton, California. The data were quickly integrated with a textile producer. A pattern (design/colors) was produced on a predetermined fabric using a computerized inkjet printer, followed by rapid fabrication, deployment and evaluation at the same location in the MOUT site. The camouflage effectiveness test results were encouraging during both day and night.

Phase II of the contract was completed 3Q98 and involved further integration of the various technologies along with the expansion of the system to include a "hot spot" world location.

As before, colors and shapes were developed based on specific terrain data, uniforms were then produced and evaluated in the target area to determine their effectiveness. Based on a small-scale observation study, camouflage effectiveness results were very good both day and night. Phase II efforts were centered on the integration of the four major components (spectral data gathering, computer aided design/inkjet printing, "Just in Time" fabrication and rapid deployment processing) into one operational system. Two main areas of concern exist. These are how to fabricate uniforms quickly and the logistical concern of how to get the newly developed camouflage uniform to the designated soldiers as quick as possible.

The SSRDC system development is currently on hold, however, SSRDC has been left in a mode which could be easily restarted should the need arise. Meanwhile the technologies involved continue to mature, i.e. computerized inkjet printing. SSRDC did produce a product (uniforms) with an increased level of protection for specific areas. SSRDC may have a broader applicability to commercial scenarios such as outdoor/ hunting and law enforcement.

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